

Appl. No.: 10/709,681
Amdt. Dated: 9/10/2006
Reply to Office action of: 06/22/2006

AMENDMENTS TO THE SPECIFICATION:

Kindly replace paragraph [0014] with the following amend paragraph:

[0014] Figure 1 shows the Architecture and the system as they are known, just as they have been described in patent GB-A-2 302 622, which encompasses: a first B1 designed to feed charges C₁ and C₂ belonging to a first service network (1) that is connected to one of the terminals (2); a generator (G) also connected to terminal 2 of battery B1 and which feeds the mentioned battery B1, network 1 and eventually, a second battery B2 designed to power a second network (3) used essentially for start-up functions including in particular, the electrical starter motor (S); a battery disconnection switch BCO (Battery Cut Off) type associated to each battery B1, B2, and which as it is common technical knowledge, ensures the automatic disconnection of the battery in case of accident, being switch BCO1 the one associated to battery B1 and switch BCO2, the one associated to battery B2 and enabling the BCO2 switch the current flow between the ~~two~~ two networks 1 and 3 in any direction. The BCO2 switch will be controlled by a control unit or module (5) that continuously monitors the charging status (SOC) of both batteries B1, B2 on one hand, and on the other, the charge demands C₁ and C₂ of networks 1 and 3, and depending on consumption demands and the status detected perform the connection / disconnection of the BCO2 switch, thus allowing energy to be transferred between batteries B1 and B2 and the respective networks 1 and 3. This control unit or module (5) includes a general microprocessor and a charge status sensor (SOC).

Kindly replace paragraph [0015] with the following amend paragraph:

[0015] The contribution made by this invention to the aforementioned architecture and management system consists on, as shown in the usage example, the inclusion of a power barrier diode (4) that establishes a bridge between the terminals of the previously mentioned BCO2 switch. This diode is a unidirectional current flow device, which as it has been previously described under the beginning of the invention, establishes a permanent connection between the two networks 1 and 3, independently of the status of the BCO2 switch, running through the mentioned diode (4), a current flow smaller than

Appl. No.: 10/709,681
Amdt. Dated: 9/10/2006
Reply to Office action of: 06/22/2006

the one flowing through the mentioned BCO2 switch, when it is closed, and also smaller than the feeding current from the generator (G) to battery B1. But, using this type of structure, the powering at all times of the start-up network (3) and the permanent recharging of the start-up battery B2 are always ensured, permitting its use at all times with an appropriate response guaranteed.

Kindly replace paragraph [0023] with the following amend paragraph:

[0023] Provide unidirectional constant current flow from the service network (1) with charges C_1 and C_2 feed from battery B1 to the network (2 3), which includes battery B2 and at least an electrical starter motor (S), with a current flow smaller to the one flowing through the BCO2 switch when closed, and also smaller to the one flowing from the generator (G) to battery B1.

Kindly replace paragraph [0025] with the following amend paragraph:

[0025] As previously stated, stage (b) which supplies a permanent unidirectional current flow from network (1) to network (2 3), is performed using a unidirectional current flow device such as a power barrier diode (4), which in fact bridges the described BCO2 switch.